

APR 25 2002



PATENT IN0117

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Zhu et al

Application No.: 10/013,071

Filed: December 10, 2001

) Examiner: To Be Assigned  
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For:  
**DIARYL PEPTIDES AS NS3-SERINE PROTEASE INHIBITORS OF HEPATITIS C VIRUS**

Assistant Commissioner for Patents  
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

It is requested that the following documents cited in the application, as listed below and in the accompanying form PTO-1449, be considered and made of record.

Documents cited in the Application:

U.S. 5,712,145  
WO 89/04669  
WO 98/17679  
WO 98/22496  
WO 99/07734  
WO 00/09558  
WO 00/09543  
EP 381 216

Publications:

- Pizzi et al. (1994) Proc. Natl. Acad. Sci (USA) 91:888-892  
Failla et al. (1996) Folding & Design 1:35-42  
Kollykhalov et al. (1994) J. Virol. 68:7525-7533  
Komoda et al. (1994) J. Virol. 68:7351-7357  
Landro et al. (1997) Biochem. 36:9340-9348  
Ingallinella et al. (1998) Biochem. 37:8906-8914  
Llinàs-Brunet et al. (1998) Bioorg. Med. Chem. Lett. 8:1713-1718  
Martin et al. (1998) Biochem. 37:11459-11468  
Dimasi et al. (1997) J. Virol. 71:7461-7469  
Martin et al. (1997) Protein Eng. 10:607-614  
Elzouki et al. (1997) J. Hepat. 27:42-48



- BioWorld Today 9(217): 4 (November 10, 1998)  
Berenguer *et al.* (1998) Proc. Assoc. Am. Physicians 110(2):98-112  
Hoofnagle *et al.* (1997) N. Engl. J. Med. 336:347  
R. Zhang *et al.*, Analytical Biochemistry, 270 (1999) 268-275  
D. L. Sali *et al.*, Biochemistry, 37 (1998) 3392-3401  
K. Barlos *et al.*, Int. J. Pept. Protein Res., 37 (1991), 513-520  
K. Holmberg *et al.*, Acta Chem. Scand., B33 (1979) 410-412  
A. Marchetti *et al.*, Synlett., S1 (1999) 1000-1002  
W. Han *et al.*, Bioorganic & Biomedicinal Chem Lett., 10 (2000) 711-713  
S. Agrawal *et al.*, "Development and Characterization of Hepatitis C Virus Serine Protease Cell-based Trans-Cleavage Assay", Hepatology Supplement to Volume 30 (No. 4, Part 2, October 1999), Abstract No. 615 (Proceedings of AASLD 50<sup>th</sup> Annual Meeting, Dallas, Texas, November 5-9, 1999.  
L. Hughes, Org. Reactions, 42 (1992) 335.  
R. F. Heck, Org. Reactions, 27 (1989) 345-390.

The submission of these documents is not to be presumed as an admission that these documents are prior art. The documents are being furnished solely for their possible utility in the examination of the present case. Since no Office Action has issued on the merits of this case, Applicants believe that no fee is due at this time. If, however, any fees are due, the Office may charge such fees to Deposit Account No. 19-0365.

If the Examiner has any questions, the Examiner is invited to contact the undersigned.

Respectfully submitted,

April 12, 2002  
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I hereby certify that this correspondence  
is being deposited with the U.S. Postal  
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addressed to Assistant Commissioner for  
Patents, Washington, D.C. 20231 on

April 12, 2002

Palaiyur S. Kalyanaraman  
Registered Representative

  
Signature and Date of Signature

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Sheet 1 of 1

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FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEINFORMATION DISCLOSURE STATEMENT  
BY APPLICANT

(Use several sheets if necessary)

ATTY. DOCKET NO.:  
IN01174SERIAL NO.:  
10/013,071APPLICANT  
Zhu, et alFILING DATE:  
December 10, 2001GROUP:  
1614

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
	AA	U.S. 5,712,145					
	AB						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION YES	NO
	AC	WO 89/04669						
	AD	WO 98/17679						
	AE	WO 98/22496						
	AF	WO 98/07734						
	AG	WO 00/09558						
	AH	WO 00/09543						
	AI	EP 381 216						
	AJ							
	AK							

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AL	Pizzi, (1994) <i>Proc. Natl. Acad. Sci(USA)</i> 91:888-892
AM	Failla (1996) <i>folding &amp; Design</i> 1:35-42
AN	Kollykhalov (1994) <i>J. Virol.</i> 68:7525-7533
AO	Komoda (1994) <i>J. Virol.</i> 68:7351-7357
AP	Landro (1997) <i>Biochem</i> 36:9340-9348
AQ	Ingallinella (1998) <i>Biochem</i> 37:8906-8914
AR	Llinas-Brunet (1998) <i>Bioorg. Med. Chem. Lett.</i> 8:1713-1718
AS	Martin (1998) <i>Biochem</i> 37:11459-11468
AT	Dimasi (1997) <i>J. Virol.</i> 71:7461-7469
AU	Martin (1997) <i>Protein Eng.</i> 10:607-614
AV	Elzouki (1997) <i>J. Hepat.</i> 27:42-48
AW	<i>Bio World Today</i> 9(217): 4 (November 10, 1998)
AX	Berenguer (1998) <i>Proc. Assoc. Am. Physicians</i> 110(2): 98-112
AY	Hoofnagle (1997) <i>New England Journal Med.</i> 336:347
AZ	Zhang (1999) <i>Analytical Biochemistry</i> 270:268-275
BA	Sali (1998) <i>Biochemistry</i> 3392-3401
BB	Barlos (1991) <i>Int. J. Pept. Protein Res</i> 513-520
BC	Holmberg (1979) <i>Acta Chem. Scand.</i> , B33:410-412
BD	Agrawal(1999) <i>Hepatology</i> Supplement to Vol 30 "Development and Characterization of Hepatitis C Virus Serine Protease Cell-based Trans-Cleavage Assay"
BE	Hughes (1992) <i>Org. Reactions</i> 42:335
BF	Heck (1989) <i>Org. Reactions</i> 27:345-390
BG	Han, (2000) <i>Bioorganic &amp; Medicinal Chemistry Letters</i> 10 "α-Ketoamides, α-Ketoesters and α-Kaketones as HCV NS3 Protease Inhibitors" pp. 711-713.
BH	Marchetti(1999) <i>Synlett</i> , Vol. S1, "Synthesis of Two Novel Cyclic Biphenyl Ether Analogs of an Inhibitor of HCV NS3 Protease", pp 1000-1002.

EXAMINER	DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.